BRUHAT BANGALORE MAHANAGARA PALIKE

Yelahanka Sub Division

NAME OF WORK:- Restoration and Improvements of roads from Doddaballapura main road to Nagarjuna collage, Kaveri layout, Chowdappa layout, Maruthinagara, Hariraja layout and surrounding areas in ward no -03 of Yelahanka New town Sub division(PACKAGE NO-12)

							Estimated Cost =		100000000.00
Sl. No.	Description of work	Unit	No.	L m	B m	D m	Quantity	Rate in Rs.	Amount in Rs.
1	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embarnkemnt location to a lead of 1.00 km and complete as per specifications MORTH Specification No.301 (I No-19.14,P No-143)								
	CC ROAD	cum							
	Kaveri Layout								
	2nd Main RHS 1st cross road		1.00	85.00	4.50	0.30	114.75		
	3rd Main LHS 1st cross road		1.00	105.00	4.50	0.30	141.75		
	3rd Main LHS 2nd cross road		1.00	200.00	4.50	0.30	270.00		
	3rd Main LHS 3rd cross road		1.00	200.00	4.50	0.30	270.00		
	3rd Main LHS 4th cross road		1.00	200.00	4.50	0.30	270.00		
							1066.50		
	ASPHALT ROAD								
	Kaveri Layout								
	Kaveri layout 2rd Main Road		1.00	325.00	7.00	0.30	682.50		
	Perpendicular road to 3rd,4th,5th cr.Road		1.00	100.00	5.50	0.30	165.00		
							847.50		
	Maruthi Nagar & Chodappa Layout & Hariraj Layout								
	CC ROAD	cum							
	Conectivity Road to 2nd,3rd,4th, cr rd & ded end road		1.00	183.00	4.50	0.30	247.05		
	ASPHALT ROAD								
	Kaveri layout 3rd Main Road		1.00	803.00	7.00	0.30	1686.30		
	3rd Main LHS 5th cross road		1.00	106.00	5.50	0.30	174.90		
	4th cross road Hariraj Layout		1.00	140.00	7.00	0.30	294.00		
	5th cross road Hariraj Layou		1.00	140.00	5.50	0.30	231.00		
	6th cross road Hariraj Layou		1.00	130.00	5.50	0.30	214.50		
							2847.75		
							5008.80	63.94	320262.67
	Basic Rate Rs.=	41.00							
	Add 6% A.W Rs. =	2.46							
	Sub Total =	43.46							
	8Km Lead, Loading and Unloading =(2*1.28*8)	20.48							
	Total Rate Rs. =	63.94							
2	KSRRB 300-58. Compaction of original ground by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications.(I No-19.64,P No-147)								
	CC ROAD	sqm							
	Kaveri Layout								
	2nd Main RHS 1st cross road		1.00	85.00	4.50		382.50		
	3rd Main LHS 1st cross road		1.00	105.00	4.50		472.50		
	3rd Main LHS 2nd cross road		1.00	200.00	4.50		900.00		
	3rd Main LHS 3rd cross road		1.00	200.00	4.50		900.00		
	3rd Main LHS 4th cross road		1.00	200.00	4.50		900.00		
							3555.00		
	ASPHALT ROAD								
	Kaveri Layout								
	Kaveri layout 2rd Main Road		1.00	325.00	7.00		2275.00		
	Perpendicular road to 3rd,4th,5th cr.Road		1.00	100.00	5.50		550.00		
							2825.00		

	CC Road								
	Maruthi Nagar & Chodappa Layout & Hariraj Layout								
	Conectivity Road to 2nd,3rd,4th, cr rd ded end road		1.00	183.00	4.50		823.50		
	ASPHALT ROAD								
	Kaveri layout 3rd Main Road		1.00	803.00	7.00		5621.00		
	3rd Main LHS 5th cross road		1.00	106.00	5.50		583.00		
	4th cross road Hariraj Layout		1.00	140.00	7.00		980.00		
	5th cross road Hariraj Layou		1.00	140.00	5.50		770.00		
	6th cross road Hariraj Layou		1.00	130.00	5.50		715.00		
							9492.50		
							16696.00	6.36	106186.56
	Basic Rate Rs.=	6.00							
	Add 6% A.W Rs. =	0.36							
	Total Rate Rs. =	**6.36**							
3	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications Clause 401 of MORTH V Revision.(I No-20.5,P No-153)								
	CC ROAD	Cum							
	Kaveri Layout								
	2nd Main RHS 1st cross road		1.00	85.00	4.50	0.15	57.38		
	3rd Main LHS 1st cross road		1.00	105.00	4.50	0.15	70.88		
	3rd Main LHS 2nd cross road		1.00	200.00	4.50	0.15	135.00		
	3rd Main LHS 3rd cross road		1.00	200.00	4.50	0.15	135.00		
	3rd Main LHS 4th cross road		1.00	200.00	4.50	0.15	135.00		
							533.25		
	ASPHALT ROAD								
	Kaveri Layout								
	Kaveri layout 2rd Main Road		1.00	325.00	7.00	0.15	341.25		
	Perpendicular road to 3rd,4th,5th cr.Road		1.00	100.00	5.50	0.15	82.50		
							423.75		
	Maruthi Nagar & Chodappa Layout & Hariraj Layout								
	Conectivity Road to 2nd,3rd,4th, cr rd ded end road		1.00	183.00	4.50	0.15	123.53		
	Asphalt Road								
	Kaveri layout 3rd Main Road		1.00	803.00	7.00	0.15	843.15		
	3rd Main LHS 5th cross road		1.00	106.00	5.50	0.15	87.45		
	4th cross road Hariraj Layout		1.00	140.00	7.00	0.15	147.00		
	5th cross road Hariraj Layou		1.00	140.00	5.50	0.15	115.50		
	6th cross road Hariraj Layou		1.00	130.00	5.50	0.15	107.25		
							1423.88		
							2504.40	1994.92	4996077.65
	Basic Rate Rs.=	1882.00							
	Add 6 % A.W Rs. =	112.92							
	Total Rate Rs. =	**1994.92**							
4	KSRRB M600-1.Providing and Constructing dry lean cement concrete mix CC 1:5:10 base with OPC 25mm and down size graded granite metal coarse aggregate at 0.86cum and 0.86cum and fine aggregate @0.58cum over a prepared sub-base,coarse and fine aggregate conforming to IS: 383-2016,aggregate cement ratio not to exceed 15:1.Aggregate gradation after blending to be as per Table 600-1,optimum moisture content to be determind during trial length construction,concrete strength not be determinde during trial length costruction, concrete strength not to be less than 10Mpa at 7 days,mixed in a batching plant,transported to site,laid with a paver,compacting with 8-10 tonnes vibratory roller, finishing and curing complete as per spectications. Clause 601 of MORTH V Revision and IS 456 Table-5 , with OPC at 150 kg/cum and coarse aggregate 0.86 cum,fine aggregate 0.58 cum using concrete Batch mix Plant at 75 cum/hr capacity with fixed form paver 22.1.2,Pg No.-174 ..								
	CC ROAD	Cum							
	Kaveri Layout								
	2nd Main RHS 1st cross road		1.00	85.00	4.50	0.15	57.38		
	3rd Main LHS 1st cross road		1.00	105.00	4.50	0.15	70.88		
	3rd Main LHS 2nd cross road		1.00	200.00	4.50	0.15	135.00		
	3rd Main LHS 3rd cross road		1.00	200.00	4.50	0.15	135.00		
	3rd Main LHS 4th cross road		1.00	200.00	4.50	0.15	135.00		
							533.25		

	Maruthi Nagar & Chodappa Layout & Hariraj Layout								
	Conectivity Road to 2nd,3rd,4th, cr rd ded end road		1.00	183.00	4.50	0.15	123.53		
							656.78		
							656.78	4061.29	2667356.76
	Basic Rate Rs.=	3665.00							
	3*55.47	166.41							
	Add 6% A.W Rs. =	229.88							
	Total Rate Rs. =	**4061.29**							

5	Constructing un-reinforced,plain cement concrete for pavements using Grade concrete M30 over a prepared base with OPC coarse aggregate at 0.69 cum,fine aggregates at 0.46 cum,coarse and fine aggregate conforming to IS:383-2016,with Superplastizer at 3 lts conforming to IS 9103-2008.mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design,laid in approved fixed side form work (sreel channel,layning and fixing of 125 micron thick polythene fim, wedges, steel plates including levelling the form work as per drawing). & Speration the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished with floaters in a construction and longitudinal joints,including groove cutting charges,joint filler,separation membrane of impermiable plastic sheet of 125 micron,sealant primer, joint sealant, admixtures as approved, curring compound, finishing to lines and grades, textured with texturing machine, and curing including cost of all materials,labour,hire charges of machineries , all lead & lift charges etc., complete as per specifications.with OPC AT 320 kg/cum and fly ash 40 kg/cum conforming to IS:3812, coarse aggregate 0.69cum,fine aggregate 0.46cum. Item No.-22.6.3,Page No.-176

	CC ROAD	Cum							
	Kaveri Layout								
	2nd Main RHS 1st cross road		1.00	85.00	4.50	0.15	57.38		
	3rd Main LHS 1st cross road		1.00	105.00	4.50	0.15	70.88		
	3rd Main LHS 2nd cross road		1.00	200.00	4.50	0.15	135.00		
	3rd Main LHS 3rd cross road		1.00	200.00	4.50	0.15	135.00		
	3rd Main LHS 4th cross road		1.00	200.00	4.50	0.15	135.00		
							533.25		
	Maruthi Nagar & Chodappa Layout & Hariraj Layout								
	Conectivity Road to 2nd,3rd,4th, cr rd & ded end road		1.00	183.00	4.50	0.15	123.53		
							656.78		
							656.78	5634.31	3700472.01
	Basic Rate Rs.=	4916.00							
	7.2*55.47	399.38							
	Add 6% A.W Rs. =	318.92							
	Total Rate Rs. =	**5634.31**							

6	KSRB 4-1.6: Providing and laying in postion Plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15cms, thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 Page No-13, Item No-4.6 (PWD BCSR 2018-19)

	KERB								
	Kaveri Layout								
	Kaveri layout 2nd Main Road		2.00	325.00	0.20	0.10	13.00		
	Kaveri layout 3rd Main Road		1.00	214.00	0.20	0.10	4.28		
	3rd Main LHS 1st cross road		2.00	105.00	0.20	0.10	4.20		
	3rd Main LHS 3rd cross road		1.00	200.00	0.20	0.10	4.00		
	Perpendicular road to LHS 3rd,4th,5th cr.Road		2.00	100.00	0.20	0.10	4.00		
							29.48		
	Kaveri layout 3rd Main Road		1.00	803.00	0.20	0.10	16.06		
	3rd Main LHS 5th cross road		1.00	106.00	0.20	0.10	2.12		
	Maruthi Nagar & Chodappa Layout & Hariraj Layout								
	4th cross road Hariraj Layout		2.00	140.00	0.20	0.10	5.60		
	5th cross road Hariraj Layou		2.00	140.00					
	6th cross road Hariraj Layou		2.00	130.00	0.20	0.10	5.20		

	Conectivity Road to 2nd,3rd,4th, cr rd ded end road maruthi Ngr layout		2.00	183.00	0.20	0.10	7.32		
							36.30		
	Doddallpur main road to nvn collage		2.00	472.00	0.20	0.10	18.88		
							55.18		
	Doddallpur main road to nvn collage		2.00	773.00	0.20	0.10	30.92		
							115.58		
							115.58	**6029.55**	**696895.55**
	Basic Rate Rs.=	5422.00							
	4.8*55.47	266.26							
	Add 6% A.W Rs. =	341.30							
	Total Rate Rs. =	**6029.55**							
7	KSRB 4-1.3 : Providing and laying in position plain cement concrete ofg Mix 1:4:8 with opc @180kgs, with 40mm and down size graded granite metal coarse aggregates@0.85 cum and fine aggregates @0.57 cum machine mixed , machine mixed, concrete laid in layers mot exceeding 15cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM curing complete as per Specifications. Specifications No. KBS 4.1 , 4.2 ,Pg.No 13 ,I.No.-4.3 of PWD BCSR 2018-19 .								
	New Drain	**Cum**							
	Kaveri Layout								
	2nd Main RHS 1st cross road		1.00	85.00	1.10	0.15	14.03		
	3rd Main LHS 1st cross road		2.00	105.00	1.10	0.15	34.65		
	Kaveri layout 2nd Main Road		2.00	325.00	1.10	0.15	107.25		
	3rd Main LHS 3rd cross road		1.00	200.00	1.10	0.15	33.00		
	Perpendicular road to LHS 3rd,4th,5th cr.Road		2.00	100.00	1.10	0.15	33.00		
							221.93		
	New RCC Culvert								
	Kaveri Layout								
	Kaveri layout 2rd Main Road		1.00	7.50	1.50	0.15	1.69		
	Kaveri layout 3rd Main Road		1.00	7.50	1.50	0.15	1.69		
							3.38		
	Maruthi Nagar & Chodappa Layout & Hariraj Layout								
	Kaveri layout 3rd Main Road		1.00	803.00	1.10	0.15	132.50		
	3rd Main LHS 5th cross road		1.00	106.00	1.10	0.15	17.49		
	4th cross road Hariraj Layout		2.00	140.00	1.10	0.15	46.20		
	5th cross road Hariraj Layou		2.00	140.00	1.10	0.15	46.20		
	6th cross road Hariraj Layou		2.00	130.00	1.10	0.15	42.90		
	Conectivity Road to 2nd,3rd,4th, cr rd ded end road maruthi Ngr layout		2.00	183.00	1.10	0.15	60.39		
	Doddallpur main road to nvn collage		2.00	472.00	1.10	0.15	**155.76**		
	New RCC Culvert						**501.44**		
	Maruthi Nagar & Chodappa Layout & Hariraj Layout								
	4th cross road Hariraj Layout		1	7.50	1.50	0.15	1.69		
	5th cross road Hariraj Layou		1	5.50	1.50	0.15	1.24		
	6th cross road Hariraj Layou		1	5.50	1.50	0.15	1.24		
							4.16		
	Nagarjuna College Road								
	Doddallpur main road to nvn collage		2.00	773.00	1.10	0.15	**255.09**		
	New RCC Culvert								
	Nagarjuna College Road								
	Doddabalapur Main Road		1.00	7.50	1.50	0.15	1.69		
	Vaishnavi Appartment		1.00	7.50	1.50	0.15	1.69		
	NVN College		1.00	7.50	1.50	0.15	1.69		
							5.06		
							991.05		
	Basic Rate Rs.=	5102.00					**991.05**	**5619.79**	**5569496.37**
	3.6*55.47	199.69							

	Add 6% A.W Rs. =	318.10							
	Total Rate Rs. =	5619.79							
8	KSRRB 300 - Excavation for road, drains and similar works KSRRB 300-1. Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 (P.No-143, I.No-19.1)								
	KERB								
	Kaveri Layout								
	KERB								
	Kaveri Layout								
	2nd Main RHS 1st cross road		1.00	85.00	0.20	0.10	1.70		
	3rd Main LHS 1st cross road		2.00	105.00	0.20	0.10	4.20		
	Kaveri layout 2nd Main Road		2.00	325.00	0.20	0.10	13.00		
	3rd Main LHS 3rd cross road		1.00	200.00	0.20	0.10	4.00		
	Perpendicular road to LHS 3rd,4th,5th cr.Road		2.00	100.00	0.20	0.10	4.00		
							26.90		
	New Drain								
	Kaveri Layout								
	2nd Main RHS 1st cross road		1.00	85.00	1.10	1.00	93.50		
	3rd Main LHS 1st cross road		2.00	105.00	1.10	1.00	231.00		
	Kaveri layout 2nd Main Road		2.00	325.00	1.10	1.00	715.00		
	3rd Main LHS 3rd cross road		1.00	200.00	1.10	1.00	220.00		
	Conectivity Road to 2nd,3rd,4th, cr rd ded end road maruthi Ngr layout		2.00	105.00	1.10	1.00	231.00		
							1490.50		
	New RCC Culvert								
	Kaveri Layout -								
	Kaveri layout 2rd Main Road		1.00	7.50	1.50	1.00	11.25		
	Kaveri layout 3rd Main Road		1.00	7.50	1.50	1.00	11.25		
							22.50		
	Maruthi Nagar & Chodappa Layout & Hariraj Layout						1539.90		
	Kaveri layout 3rd Main Road		1.00	803.00	0.20	0.10	16.06		
	3rd Main LHS 5th cross road		1.00	106.00	0.20	0.10	2.12		
	4th cross road Hariraj Layout		2.00	140.00	0.20	0.10	5.60		
	5th cross road Hariraj Layou		2.00	140.00	0.20	0.10	5.60		
	6th cross road Hariraj Layou		2.00	130.00	0.20	0.10	5.20		
	Conectivity Road to 2nd,3rd,4th, cr rd ded end road maruthi Ngr layout		2.00	183.00	0.20	0.10	7.32		
							41.90		
	Doddallpur main road to nvn collage		2.00	472.00	0.20	0.10	18.88		
	New Drain						18.88		
	Maruthi Nagar & Chodappa Layout & Hariraj Layout								
	Kaveri layout 3rd Main Road		1.00	803.00	1.10	1.00	883.30		
	3rd Main LHS 5th cross road		1.00	106.00	1.10	1.00	116.60		
	4th cross road Hariraj Layout		2.00	140.00	1.10	1.00	308.00		
	5th cross road Hariraj Layout		2.00	140.00	1.10	1.00	308.00		
	6th cross road Hariraj Layout		2.00	130.00	1.10	1.00	286.00		
	Conectivity Road to 2nd,3rd,4th, cr rd ded end road maruthi Ngr layout		2.00	183.00	1.10	1.00	402.60		
	Doddallpur main road to nvn collage		2.00	472.00	1.10	1.00	1038.40		
	New RCC Culvert						3342.90		
	Maruthi Nagar & Chodappa Layout & Hariraj Layout								
	4th cross road Hariraj Layout		1.00	7.00	1.50	1.00	10.50		
	5th cross road Hariraj Layout		1.00	5.50	1.50	1.00	8.25		

	6th cross road Hariraj Layout		1.00	5.50	1.50	1.00	8.25		
							27.00		
							3430.68		
	Nagarjuna College Road								
	Doddallpur main road to nvn collage		2.00	773.00	0.20	0.10	30.92		
							30.92		
	Nagarjuna College Road								
	New Drain								
	Doddallpur main road to nvn collage		2.00	773.00	1.10	1.00	1700.60		
							1700.60		
	New RCC Culvert								
	Nagarjuna College Road								
	Doddabalapur Main Road		1.00	7.50	1.50	1.00	11.25		
	Vaishnavi Appartment		1.00	7.50	1.50	1.00	11.25		
	Near Nagarjuna College		1.00	7.50	1.50	1.00	11.25		
							33.75		
							6735.85		
	Basic Rate Rs.=	130.00					6735.85	215.28	1450093.79
	Add 6 % A.W Rs. =	7.80							
	Sub Total =	137.80							
	8Km Lead, Loading and Unloading =(2*1.28*8)+57	77.48							
	Total Rate Rs. =	215.28							
9	Providing and laying plain/reinforced cement concrete for side drains using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specifications. Wall and Bottom Thickness 15 cm , Item No.37.59.2, Page No.271.-								
		Cum							
	Nagarjuna College Road								
	RCC Drain RAFT								
	Kaveri Layout								
	2nd Main RHS 1st cross road		1.00	85.00	0.90	0.15	11.48		
	3rd Main LHS 1st cross road		2.00	105.00	0.90	0.15	28.35		
	Kaveri layout 2nd Main Road		2.00	325.00	0.90	0.15	87.75		
	3rd Main LHS 3rd cross road		1.00	200.00	0.90	0.15	27.00		
	Perpendicular road to LHS 3rd,4th,5th cr.Road		2.00	100.00	0.90	0.15	27.00		
							181.58		
	Kaveri Layout								
	Drain WALL								
	2nd Main RHS 1st cross road		2.00	85.00	0.15	0.60	15.30		
	3rd Main LHS 1st cross road		4.00	105.00	0.15	0.60	37.80		
	Kaveri layout 2nd Main Road		4.00	325.00	0.15	0.60	117.00		
	3rd Main LHS 3rd cross road		2.00	200.00	0.15	0.60	36.00		
	Perpendicular road to LHS 3rd,4th,5th cr.Road		4.00	100.00	0.15	0.60	36.00		
							242.10		
	Kaveri Layout								
	culvert RAFT								
	Kaveri layout 2rd Main Road		1.00	7.50	1.20	0.20	1.80		
	Kaveri layout 3rd Main Road		1.00	7.50	1.20	0.20	1.80		
							3.60		
	Kaveri Layout								
	culvert WALL								
	Kaveri layout 2rd Main Road		2.00	7.50	0.23	0.50	1.73		
	Kaveri layout 3rd Main Road		2.00	7.50	0.23	0.50	1.73		
							3.45		
	Drain Raft	Cum							

	Maruthi Nagar & Chodappa Layout & Hariraj Layout								
	Kaveri layout 3rd Main Road		1.00	803.00	0.90	0.15	108.41		
	3rd Main LHS 5th cross road		1.00	106.00	0.90	0.15	14.31		
	4th cross road Hariraj Layout		2.00	140.00	0.90	0.15	37.80		
	5th cross road Hariraj Layout		2.00	140.00	0.90	0.15	37.80		
	6th cross road Hariraj Layout		2.00	130.00	0.90	0.15	35.10		
	Conectivity Road to 2nd,3rd,4th, cr rd ded end road maruthi Ngr layout		2.00	183.00	0.90	0.15	49.41		
							282.83		
	Doddallpur main road to nvn collage		2.00	472.00	0.90	0.15	**127.44**		
	culvert RAFT								
	Maruthi Nagar & Chodappa Layout & Hariraj Layout								
	4th cross road Hariraj Layout		1.00	7.00	1.20	0.20	1.68		
	5th cross road Hariraj Layout		1.00	5.50	1.20	0.20	1.32		
	6th cross road Hariraj Layout		1.00	5.50	1.20	0.20	1.32		
							4.32		
	Maruthi Nagar & Chodappa Layout & Hariraj Layout								
	Drain Wall								
	Kaveri layout 3rd Main Road		2.00	803.00	0.15	0.60	144.54		
	3rd Main LHS 5th cross road		2.00	106.00	0.15	0.60	19.08		
	4th cross road Hariraj Layout		4.00	140.00	0.15	0.60	50.40		
	5th cross road Hariraj Layout		4.00	140.00	0.15	0.60	50.40		
	6th cross road Hariraj Layout		4.00	130.00	0.15	0.60	46.80		
	Conectivity Road to 2nd,3rd,4th, cr rd ded end road maruthi Ngr layout		4.00	183.00	0.15	0.60	65.88		
	Doddallpur main road to nvn collage		4.00	472.00	0.15	0.60	169.92		
							547.02		
	culvert WALL								
	Maruthi Nagar & Chodappa Layout & Hariraj Layout								
	4th cross road Hariraj Layout		2.00	7.00	0.23	0.50	1.61		
	5th cross road Hariraj Layout		2.00	5.50	0.23	0.50	1.27		
	6th cross road Hariraj Layout		2.00	5.50	0.23	0.50	1.27		
							4.14		
	RCC Drain RAFT	Cum							
	Nagarjuna College Road								
	Doddallpur main road to nvn collage		2.00	773.00	0.90	0.15	208.71		
							208.71		
	culvert RAFT								
	Nagarjuna College Road								
	Doddabalapur Main Road		1.00	7.50	1.20	0.20	1.80		
	Vaishnavi Appartment		1.00	7.50	1.20	0.20	1.80		
	NVN College		1.00	7.50	1.20	0.20	1.80		
							5.40		
	Nagarjuna College Road								
	Drain WALL								
	Doddallpur main road to nvn collage		4.00	773.00	0.15	0.60	278.28		
							278.28		
	culvert WALL								
	Nagarjuna College Road								
	Doddabalapur Main Road		2.00	7.50	0.23	0.50	1.73		
	Vaishnavi Appartment		2.00	7.50	0.23	0.50	1.73		
	NVN College		2.00	7.50	0.23	0.50	1.73		

							5.18		
							1894.04		
							1894.04	7422.99	14059401.35
	Basic Rate Rs.=	6670.00							
	6*55.47	332.82							
	Add 6% A.W Rs. =	420.17							
	Total Rate Rs. =	7422.99							
10	KSRRB M 2200-6 Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. MORTH Specification No 1600 & 2200 TMT Bars Fe 500 Page No 229 Item No 28.8.2 SR 2018-19								
	Kaveri Layout								
	Consider steel for drain 60kg/cum	Tn			423.68	0.06	25.42		
	Consider steel for culvert 80kg/cum	Tn			7.05	0.08	0.56		
							25.98		
	Kaveri Layout								
	Consider steel for drain 60kg/cum	Tn			957.29	0.06	57.44		
	Consider steel for culvert 80kg/cum	Tn			8.46	0.08	0.68		
							58.11		
	Nagarjuna College Road								
	Consider steel for drain 60kg/cum	Tn			486.99	0.06	29.22		
	Consider steel for culvert 80kg/cum	Tn			10.58	0.08	0.85		
							30.07		
						Total Quantity	114.16		
							114.16	80146.60	9149840.41
	Basic Rate Rs.=	75610.00							
	Add 6% A.W Rs. =	4536.60							
	Total Rate Rs. =	80146.60							
11	Providing and Fixing pre cast covering Slab of 100mm thick made out of CC jelly 20mm and down size with steel reinforecement , inclunding form work, lift charges, curing including cost of all materials ,Labour,Hire charges of machineries,loading onloading,lead and lift,Transportation etc,complete. as per Engineer in-charge.(Data rate)								
	New RCC Drain	Sqm							
	New RCC Drain	Sqm							
	Kaveri Layout								
	2nd Main RHS 1st cross road		1.00	85.00	0.90		76.50		
	3rd Main LHS 1st cross road		2.00	105.00	0.90		189.00		
	Kaveri layout 2nd Main Road		2.00	325.00	0.90		585.00		
	3rd Main LHS 3rd cross road		1.00	200.00	0.90		180.00		
	Perpendicular road to LHS 3rd,4th,5th cr.Road		2.00	100.00	0.90		180.00		
							1210.50		
	Maruthi Nagar & Chodappa Layout & Hariraj Layout								
	Kaveri layout 3rd Main Road		1.00	803.00	0.90		722.70		
	3rd Main LHS 5th cross road		1.00	106.00	0.90		95.40		
	4th cross road Hariraj Layout		2.00	140.00	0.90		252.00		
	5th cross road Hariraj Layout		2.00	140.00	0.90		252.00		
	6th cross road Hariraj Layout		2.00	130.00	0.90		234.00		
	Conectivity Road to 2nd,3rd,4th, cr rd ded end road maruthi Ngr layout		2.00	183.00	0.90		329.40		
	Doddallpur main road to nvn collage		2.00	472.00	0.90		1885.50		
							849.60		
							2735.10		

	Nagarjuna College Road								
	Doddallpur main road to nvn collage		2.00	773.00	0.90		1391.40		
							5337.00	1922.00	10257714
	Data Rate	1922.00							
12	Providing and fixing RCC precast cover slab of 230mm thick for drain in cement concrete 1:1.5:3 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	NEW RCC Culvert	sqm							
	Kaveri Layout								
	Kaveri layout 2rd Main Road		1.00	7.50	1.20		9.00		
	Kaveri layout 3rd Main Road		1.00	7.50	1.20		9.00		
							18.00		
	Maruthi Nagar & Chodappa Layout & Hariraj Layout								
	4th cross road Hariraj Layout		1.00	7.50	1.20		9.00		
	5th cross road Hariraj Layout		1.00	5.50	1.20		6.60		
	6th cross road Hariraj Layout		1.00	5.50	1.20		6.60		
							22.20		
	Nagarjuna College Road								
	Doddabalapur Main Road		1.00	7.50	1.20		9.00		
	Vaishnavi Appartment		1.00	7.50	1.20		9.00		
	NVN College		1.00	7.50	1.20		9.00		
							27.00		
							67.20	4486.00	301459.20
	Data Rate	4486.00							
13	Providing and fixing pre cast solid cement concrete kerb stones made out of C.C 1:2:4 with top and bottom width 114 and 165 mm respectively , 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting, including form work, curing, including cost of all materials , labour,hire charges of machinery, loading, unloading, lead and lift, transportation ect., complete.I.No.-5.30,P.No-27 of PWD BCSR 2018-19 .								
	KERB	No's							
	Kaveri Layout								
	2nd Main RHS 1st cross road		1.00	85.00			85		
	3rd Main LHS 1st cross road		2.00	105.00			210		
	Kaveri layout 2nd Main Road		2.00	325.00			650		
	3rd Main LHS 3rd cross road		1.00	200.00			200		
	Perpendicular road to LHS 3rd,4th,5th cr.Road		2.00	100.00			200		
							1345		
	Maruthi Nagar & Chodappa Layout & Hariraj Layout								
	Kaveri layout 3rd Main Road		1.00	803.00			803		
	3rd Main LHS 5th cross road		1.00	106.00			106		
	4th cross road Hariraj Layout		2.00	140.00			280		
	5th cross road Hariraj Layou		2.00	140.00			280		
	6th cross road Hariraj Layou		2.00	130.00			260		
	Conectivity Road to 2nd,3rd,4th, cr rd ded end road maruthi Ngr layout		2.00	183.00			366		
							2095		
	Nagarjuna College Road								
	Doddallpur main road to nvn collage		2.00	1245.00			5533.33		
							8973.33		
	Basic Rate Rs.=	408.00				0.45	19940.74	432.48	8623971.556
	Add 6% A.W Rs. =	24.48							
	Total Rate Rs. =	432.48							

14	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 ,Specification No.KSRRB M800 -6.P.No.180,I No-24.1 of PW,P & IWTD SR 2018-19 ,								
	KERB	SQM							
	Kaveri Layout								
	2nd Main RHS 1st cross road		1.00	85.00		0.35	29.75		
	3rd Main LHS 1st cross road		2.00	105.00		0.35	73.50		
	Kaveri layout 2nd Main Road		2.00	325.00		0.35	227.50		
	3rd Main LHS 3rd cross road		1.00	200.00		0.35	70.00		
	Perpendicular road to LHS 3rd,4th,5th cr.Road		2.00	100.00		0.35	70.00		
							470.75		
	Maruthi Nagar & Chodappa Layout & Hariraj Layout								
	Kaveri layout 3rd Main Road		1.00	803.00		0.35	281.05		
	3rd Main LHS 5th cross road		1.00	106.00		0.35	37.10		
	4th cross road Hariraj Layout		2.00	140.00		0.35	98.00		
	5th cross road Hariraj Layou		2.00	140.00		0.35	98.00		
	6th cross road Hariraj Layou		2.00	130.00		0.35	91.00		
	Conectivity Road to 2nd,3rd,4th, cr rd ded end road maruthi Ngr layout		2.00	183.00		0.35	128.10		
							733.25		
	Nagarjuna College Road								
	Doddallpur main road to nvn collage		2.00	1245.00		0.35	871.50		
							2075.50		
							2075.50	84.80	176002.4
	Approved Rate Rs.=	80.00							
	Add 6% A.W Rs. =	4.80							
	Total Rate Rs. =	84.80							
15	KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications (P.No.-155,I.No.-20.18).								
	ASPHALT ROAD	cum							
	Kaveri Layout								
	Kaveri layout 2rd Main Road		1.00	325.00	7.00	0.20	455.00		
	Perpendicular road to 3rd,4th,5th cr.Road		1.00	100.00	5.50	0.20	110.00		
							565.00		
	Maruthi Nagar & Chodappa Layout & Hariraj Layout								
	Kaveri layout 3rd Main Road		1.00	803.00	7.00	0.20	1124.20		
	3rd Main LHS 5th cross road		1.00	106.00	5.50	0.20	116.60		
	4th cross road Hariraj Layout		1.00	140.00	7.00	0.20	196.00		
	5th cross road Hariraj Layout		1.00	140.00	5.50	0.20	154.00		
	6th cross road Hariraj Layout		1.00	130.00	5.50	0.20	143.00		
							1733.80		
						Total Quantity	2,298.80	2001.28	4600542.46
	Approved Rate Rs.=	1888.00							
	Add 6% A.W Rs. =	113.28							
	Total Rate Rs. =	2001.28							
16	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and sparying primer at the rte of 0.60 kg /sqm using mechanical means complete as per specifications .Clause 502 of MoRTH V th Revision (pg No.158 I.No-21.6), Issue Rate								
	ASPHALT ROAD	Sqm							
	Kaveri Layout								
	Kaveri layout 2rd Main Road		1.00	325.00	7.00		2275.00		

	Perpendicular road to 3rd,4th,5th cr.Road		1.00	100.00	5.50		550.00		
							2825.00		
	Maruthi Nagar & Chodappa Layout & Hariraj Layout								
	Kaveri layout 3rd Main Road		1.00	803.00	5.50		4416.50		
	3rd Main LHS 5th cross road		1.00	106.00	5.50		583.00		
	4th cross road Hariraj Layout		1.00	140.00	7.00		980.00		
	5th cross road Hariraj Layout		1.00	140.00	7.00		980.00		
	6th cross road Hariraj Layout		1.00	130.00	5.50		715.00		
							7674.50		
							10499.50		
						Total Quantity	10,499.50	33.92	356143.04
	Approved Rate Rs.=	32.00							
	Add 6% A.W Rs. =	1.92							
	Total Rate Rs. =	33.92							
17	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen (VG10) on the prepared black topped surfaces at 2.5 kg per 10sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of materials , labour, HOM complete as per specification P.No.-158,I.No-21.7,Issue Rate								
	ASPHALT ROAD	Sqm							
	Kaveri Layout								
	Kaveri layout 2rd Main Road		1.00	325.00	7.00		2275.00		
	Perpendicular road to 3rd,4th,5th cr.Road		1.00	100.00	5.50		550.00		
							2825.00		
	Maruthi Nagar & Chodappa Layout & Hariraj Layout								
	Kaveri layout 3rd Main Road		1.00	803.00	5.50		4416.50		
	3rd Main LHS 5th cross road		1.00	106.00	5.50		583.00		
	4th cross road Hariraj Layout		1.00	140.00	7.00		980.00		
	5th cross road Hariraj Layout		1.00	140.00	7.00		980.00		
	6th cross road Hariraj Layout		1.00	130.00	5.50		715.00		
							7674.50		
	Nagarjuna College Road								
	Doddallpur main road to Nagarjuna collage		2.00	1245.00	7.00		17430.00		
							27929.50		
						Total Quantity	27,929.50	12.72	355263.24
	Approved Rate Rs.=	12.00							
	Add 6% A.W Rs. =	0.72							
	Total Rate Rs. =	12.72							
18	KSRRB M500-17. Providing and laying **dense graded bituminous macadam** using crushed aggreagates of specified grading, premixed with VG30 grade bituminous binder and, trasporing the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compation in all respects complete as per specficiations. Clause 505 of MORTH V revision.--do- using 40/60 TPH capacity H.M.P with Mechnaical paver Gr-II (50mm to 75mm) with 4.5% VG-30 Bitumen(pg.No 159, I.No.21.17.6) Issue rate								
	ASPHALT ROAD	Cum							
	Kaveri Layout								
	Kaveri layout 2rd Main Road		1.00	325.00	7.00	0.050	113.75		
	Perpendicular road to 3rd,4th,5th cr.Road		1.00	100.00	5.50	0.050	27.50		
							141.25		
	Maruthi Nagar & Chodappa Layout & Hariraj Layout								
	Kaveri layout 3rd Main Road		1.00	803.00	5.50	0.050	220.83		
	3rd Main LHS 5th cross road		1.00	106.00	5.50	0.050	29.15		
	4th cross road Hariraj Layout		1.00	140.00	7.00	0.050	49.00		
	5th cross road Hariraj Layout		1.00	140.00	7.00	0.050	49.00		
	6th cross road Hariraj Layout		1.00	130.00	5.50	0.050	35.75		

							383.73		
	Doddallpur main road to Nagarjuna collage		2.00	1245.00	7.00	0.05	871.50		
							1396.48		
							1396.48	7292.80	10184212.88
	Approved Rate Rs.=	6880.00							
	Add 6% A.W Rs. =	412.80							
	Total Rate Rs. =	7292.80							
19	KSRRB M500-19.Providing and laying bituminous concrete using crushed aggregates of specified grading,premixed with bituminous binder and filter,transporting the hot mix to work site,laying with a paver finisher to the required grade,level and alignment ,rolling with smooth wheeled,vibratory and tandam rollers to achieve the desired compaction and using 40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 40 mm) with 5.4% VG-30 Bitumen in all respects complete as per specifications .Clause 507 of MoRTH V revision . Pg No- 162 ,I.No.21.22.6 .								
		cum	Asphalt						
	Kaveri Layout								
	Kaveri layout 2rd Main Road		1.00	325.00	7.00	0.040	91.00		
	Perpendicular road to 3rd,4th,5th cr.Road		1.00	100.00	5.50	0.040	22.00		
							113.00		
	Maruthi Nagar & Chodappa Layout & Hariraj Layout								
	Kaveri layout 3rd Main Road		2.00	803.00	5.50	0.040	353.32		
	3rd Main LHS 5th cross road		1.00	106.00	5.50	0.040	23.32		
	4th cross road Hariraj Layout		2.00	140.00	7.00	0.040	78.40		
	5th cross road Hariraj Layout		2.00	140.00	7.00	0.040	78.40		
	6th cross road Hariraj Layout		2.00	130.00	5.50	0.040	57.20		
							590.64		
	Doddallpur main road to Nagarjuna collage		1.00	1245.00	7.00	0.040	348.60		
							1052.24		
					Total Quantity		1,052.24	8450.32	8891764.72
	Approved Rate Rs.=	7972.00							
	Add 6% A.W Rs. =	478.32							
	Total Rate Rs. =	8450.32							
20	KSRRB M800-13. Road Marking with Hot Applied 'Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface / Concrete Surface :- Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications .MoRTH Specifications No.803(Pg.No-182,I.No.24.15,								
	CC Road	**Sqm**							
	Kaveri Layout								
	2nd Main RHS 1st cross road		2.00	85.00	0.15		25.50		
	3rd Main LHS 1st cross road		2.00	105.00	0.15		31.50		
	3rd Main LHS 2nd cross road		2.00	200.00	0.15		60.00		
	3rd Main LHS 3rd cross road		2.00	200.00	0.15		60.00		
	3rd Main LHS 4th cross road		2.00	200.00	0.15		60.00		
							237.00		
	Asphalt Road								
	Kaveri Layout								
	Kaveri layout 2rd Main Road		2.00	325.00	0.15		117.00		
	Perpendicular road to 3rd,4th,5th cr.Road		2.00	100.00	0.15		30.00		
							147.00		
	Conectivity Road to 2nd,3rd,4th, cr rd & ded end road		2.00	183.00	0.15		54.90		
	Asphalt Road								
	Maruthi Nagar & Chodappa Layout & Hariraj Layout								
	Kaveri layout 3rd Main Road		2.00	803.00	0.15		240.90		

	3rd Main LHS 5th cross road		2.00	106.00	0.15		31.80		
	4th cross road Hariraj Layout		2.00	140.00	0.15		49.70		
	5th cross road Hariraj Layout		2.00	140.00	0.15		49.70		
	6th cross road Hariraj Layout		2.00	130.00	0.15		39.00		
							466.00		
	Doddallpur main road to Nagarjuna collage		2.00	1245.00	0.15		448.20		
							1298.20		
						Total Quantity	1,298.20	454.74	590343.47
	Approved Rate Rs.=	429.00							
	Add 6% A.W Rs. =	25.74							
	Total Rate Rs. =	454.74							
21	KSRRB M800 Road markers/Road stud: KSRRB M800-35. Supply and Installtion of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS(Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to Specifications of Category A of MORTH Circular No RW/ NH/33023/10-97 - DO III Dt 11.06. 1997. The height, width and length shall not exceed 50 mm, 100 mm and 102 mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 degree. The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19 mm and height not less than 30 mm) from the body is to be a minimum value of 500 Kg. Fixing will be by drilling holes on the road for the shanks to go inside, without nails and using epoxy resin based adhesive as per manufacturer's recommendation and complete as directed by the engineer with 2 years warranty for the reflectivity from the original manufacturer is mandatory along with necessary test certification from the certified laboratory. Third party test certificates from a reputed test laboratory shall be submitted with Seal and Signature in Originals.(Page No.187. Item No.24.41),PWP &IWTD, Bangalore Circle, SOR 2018-19									
	Asphalt Road								
	Kaveri Layout								
	Kaveri layout 2rd Main Road		2.00	325.00	7.00		146		
	Maruthi Nagar & Chodappa Layout								
	Asphalt Road								
	Kaveri layout 3rd Main Road		2.00	803.00	7.00		361		
	Maruthi Nagar & Chodappa Layout & Hariraj Layout								
	4th cross road Hariraj Layout		2.00	140.00	7.00		63		
	5th cross road Hariraj Layout		2.00	140.00	7.00		63		
	Nagarjuna College Road								
	Doddallpur main road to Nagarjuna collage		2.00	1245.00	7.00		560		
							1194		
							1193.85	357.22	426467.10
	Approved Rate Rs.=	337.00							
	Add 6% A.W Rs. =	20.22							
	Total Rate Rs. =	357.22							

	Total Construction Cost	87480421.67
	Towards GST 12%	10497650.60
	Sub Total	97978072.27
	DPR Charges 1%	1000000.00
	PMC Charges 1%	1000000.00
	Utility Shifting,Miscellaneous and Rounding off	21927.73
	GRAND TOTAL	100000000.00

CERTIFICATE:

1 The work spot has been inspected by me and the work is found to be necessary.
2 The estimate is prepared as per PW, P&IWTD S.R Bangalore circle for the year 2018-2019.
3 The Provisions made in the estimate are quite necessary and adequate.
4 The area comes with in the BBMP limits.

Assistant Engineer
Ward No-03
BBMP

Assistant Executive Engineer
Yelahanka New Town Sub Division
BBMP

Executive Engineer
Yelahanka Division
BBMP

AARTN ASSOCIATES BANGALORE

Technical Sanction
Accorded For Rs 1000.00 Lakhs only
Head of A/C....P-3867
CER NO :..37..... Dt:26.08.2021

ವಲಯ
ಯಲಹಂಕ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ

Administrative Sanction for Rs. ...1000.00 Lakhs
Rupees One Crore Only
.....
is accorded under head P-3867
Restoration of 110 villages
Roads dug by BWSSB
Registered as CE No. 93 Subject
to conditions contained in enclosed memo
No.BBMP/E-E/YNH-D/AS/93/21-22 Dt 11/2/2022

Executive Engineer